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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/780,007
Filing Date: February 17, 2004
Appellant(s): CHOWDHURY ET AL.

Gregory W. Carr
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 15 June 2010 appealing from the Office action mailed 5 January 2010.

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(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

- a. Claims 1-6 and 15-20 have been rejected.
- b. Claims 1-6 and 15-20 have been appealed.
- c. Claims 1 and 15 have been amended.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is

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taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6,970,924	Chu et al	02-1999
7,225,272	Kelley et al	05-2007
7,349,894	Barth et al	07-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-3, 15, and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al (U.S. Patent No. 6,970,924, hereinafter referred to as CHU), filed on 23 February 1999, and issued on 29 November 2005, in view of Kelley et al (U.S. Patent No. 7,225,272, hereinafter referred to as KELLEY), filed on 31 July 2002, published on 5 February 2004, and issued on 29 May 2007, and in further view of

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Barth et al (U.S. Patent No. 7,349,894, hereinafter referred to as BARTH), filed on 30 July 2004, claiming provisional priority to 22 March 2000, published on 13 January 2005, and issued on 25 March 2008.

3. **As per independent claims 1 and 15**, CHU, in combination with KELLEY and BARTH, discloses:

A method of determining an Internet Protocol (IP) address of an application server in a serving network, comprising:

receiving an IP address associated with a device on the network by a wireless mobile device {See CHU, C16:L7-32, wherein this reads over "[p]erforming a reverse DNS lookup on each IP address"};

performing a reverse domain name query by the wireless mobile device using the received IP address {See CHU, C16:L7-32, wherein this reads over "[p]erforming a reverse DNS lookup on each IP address"};

receiving, by the wireless mobile device, a response to the reverse domain name query comprising the visited serving network domain name {See CHU, C16:L7-32, wherein this reads over "[p]erforming a reverse DNS lookup on each IP address returns strings representing host names for links (e.g. 208.218.140.5 may map to inverse-gwl.alter.net)"}, wherein the network is visited by the wireless mobile device and serving the wireless mobile device {See CHU, C3:L14-18, wherein this reads over "Clients 12 can by any type of computer or computing device that connects to a network or server system, be it a local area network (LAN), wide area network (WAN)"};

extracting, by the wireless mobile device, the serving network domain name from the received reverse domain name query {See CHU, C16:L7-32, wherein this reads over "a router with links names 'host1.inverse.net' and 'host2.alter.net' may be situated on the administrative boundary between 'inverse.net' and 'alter.net'" and "[a] central server, such as the server at whois.internic.net, can be queries for the owner of a given IP address. Whois requests return domain names"};

selecting, by the wireless mobile device, an application server name as a function of a service desired by the wireless mobile device {See BARTH, C11:L19-56, wherein this reads over "a server name is constructed dynamically"};

appending, by the wireless mobile device, the extracted serving network domain name to the application server name {See CHU, C16:L7-32, wherein this reads over "a router with links names 'host1.inverse.net' and 'host2.alter.net'", thereby generating a domain-specific application server name {See KELLEY, Figure 3; and C7:L31-14, wherein this reads over "the reference . . . may be utilized to dynamically generate a canonical name"};

performing, by the wireless mobile device, a domain name query using the domain-specific application server name {See CHU, C16:L7-32, wherein this reads over "a router with links names 'host1.inverse.net' and 'host2.alter.net' may be situated on the administrative boundary between 'inverse.net' and 'alter.net'" and "[a] central server, such as the server at whois.internic.net, can be queries for the owner of a given IP address. Whois requests return domain names"}; and

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receiving, by the wireless mobile device, a response to the domain name query comprising a second IP address {See CHU, C16:L7-32, wherein this reads over "[p]erforming a reverse DNS lookup on each IP address returns strings representing host names for links (e.g. 208.218.140.5 may map to inverse-gwl.alter.net)"}}, the second IP address identifying an application server in the visited serving network, the application server capable of providing the service desired by the wireless mobile device.

While CHU may fail to expressly disclose the generation of an application server name, BARTH discloses a method wherein the server name is constructed dynamically by the client. Accordingly, the modification of CHU by BARTH would lead to a combination wherein application server name may be generated such that it may be appended to a domain name. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CHU by combining it with the invention disclosed by BARTH.

While CHU may fail to expressly disclose the generation of a domain-specific application server name, KELLEY discloses a method wherein parsed pieces of a reference may be used to dynamically generate a canonical name. Accordingly, the modification of CHU by KELLEY would lead to a combination wherein the derived serving network domain name information may be appended dynamically to generate a domain-specific application server name. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CHU by combining it with the invention disclosed by KELLEY.

One of ordinary skill in the art would have been motivated to do this modification so that the domain-specific application server name may be used by the domain name query to return an IP address of the application server.

4. **As per dependent claim 2**, CHU, in combination with KELLEY and BARTH, discloses:

The method of claim 1, wherein the receiving an IP address comprises receiving an IP address for the UE {See CHU, C16:L7-32, wherein this reads over "[b]oundary routers" and "each IP address"}.

5. **As per dependent claim 3**, it would be inherent for the step of receiving an IP address comprised of receiving an IP address associated with a device providing an IP address to the serving

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network since without the IP address, none of the subsequent steps of the claimed invention would be possible.

6. **As per independent claim 20**, CHU, in combination with KELLEY and BARTH, discloses:

The system of Claim 15, wherein the wireless mobile device is configured to store the second IP address. {See CHU, C16:L7-32, wherein this reads over "[p]erforming a reverse DNS lookup on each IP address returns strings representing host names for links (e.g. 208.218.140.5 may map to inverse-gwl.alter.net)"}.}

7. **Claims 4-6 and 16-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over CHU, in view of KELLEY and BARTH, and in further view of Official Notice.

8. **As per dependent claims 4 and 19**, the Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit an IP address of a gateway to the UE since a gateway is well-known and commonly-used within the art to connect two IP-based networks.

9. **As per dependent claim 5**, the Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art at the time the invention was made to derive information from a Uniform Resource Identifier (URI), since a URI is well-known and commonly-used within the art to identify a resource.

10. **As per dependent claim 6**, the Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the application server be a Proxy Call Session Control Function (P-CSCF) server name since a P-CSCF server is simply another type of application server available.

11. **As per dependent claim 16**, the Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art at the time the invention was made for the serving network to have a URI since a URI is commonly-used and well-known in the art to be used as an identifier of network resources.

12. **As per dependent claim 17**, CHU, in combination with KELLEY, BARTH, and Official Notice, discloses:

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The method of claim 1, wherein the IPD address is the IP address of the wireless mobile device {See CHU, C16:L7-32, wherein this reads over "[b]oundary routers" and "each IP address"}.

13. **As per dependent claim 18**, it would be inherent for the step of receiving an IP address comprised of receiving an IP address associated with a device providing an IP address to the serving network since without the IP address, none of the subsequent steps of the claimed invention would be possible.

(10) Response to Argument

a. Rejection of Claim 1 under 35 U.S.C. 103(a)

Firstly, Appellant asserts the argument that "the cited DNS query would have no purpose." See Appeal Brief, page 9. The Examiner respectfully disagrees. Specifically, Appellant asserts that "a combination of Chu and Barth or a combination of Chu and Kelley would not include a domain name query using the result of a reverse domain name query, because the domain name query would have no purpose." See Appeal Brief, page 9.

For purposes of establishing an understanding of the general art at hand, the following background of the art is provided. A DNS query is well-known within the art as a query sent to a Domain Name Server (DNS) to resolve a domain name or hostname into an Internet Protocol (IP) address. A reverse DNS query is well-known within the art as a query sent to a DNS to find one or more DNS names associated with a given IP address.

The Examiner notes that Chu discloses the functional features of both a domain name query and a reverse domain name query. While Appellant asserts that "the domain name query would have no purpose" and that "the cited references do not provide any reason why an already-identified IP address must be identified a second time," the Examiner notes that the prior art references of Chu, Barth, and Kelley provide a functional combination which appropriately read upon the recited features of the instant application. The instant claim discloses an invention wherein a reverse DNS query is executed to determine the network domain name (e.g. 192.1.1.1

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is mapped to www.xyz.net). From said determination, a specific application server name is extracted and appended to the domain name (e.g. app is added to app.xyz.net). Using the domain-specific application server name, a domain name query is executed to determine the precise IP address of the domain-specific application server name (e.g. app.xyz.net is mapped to 192.1.1.123). Using said precise IP address, the wireless mobile device is thereafter able to communicate with said application server for desired content such as email content.

Accordingly, wherein Barth discloses the feature of constructing a server name and Kelley further discloses the dynamic generation of a canonical name, it would have been obvious to one of ordinary skill in the art that the combination of Chu, Barth, and Kelley would disclose an invention that is both purposeful and useful. That is, as Chu discloses that the domain name of a server may be extracted using a reverse DNS query, the application of Barth would allow for the extraction of a server name related to said domain name. Using the extracted server name, the invention of Kelley would allow for said server name to be used in the construction of a canonical name further using the domain name. Accordingly, Chu may be applied such that the IP address of the constructed canonical name may be extracted and conveyed to the wireless mobile device. That is, it would have been obvious to one of ordinary skill in the art to combine the inventions of Chu, Kelley, and Barth such that a reverse DNS query and a DNS query may be used in conjunction to improve the reverse DNS lookup system of Chu for the predictable result of enabling a forward DNS query upon the domain name such that an application server may be identified by IP address. Therefore, the Examiner respectfully disagrees with Appellant's assertion that the combination of the instant prior art references would neither provide a purpose or read upon the claimed invention as presently recited.

Secondly, Appellant asserts the argument that "the cited dynamic generation of an application server name would destroy the principle of operation of Chu." See Appeal Brief, page 10. The Examiner respectfully disagrees. In response to Appellant's argument that there is no teaching, suggestion, or motivation to combine the references (i.e. destroy the principle of

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operation of Chu), the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, Appellant cites portions of Barth which skew and disregard the purpose for the dynamic assignment of clients to a specific server. Specifically, Barth discloses a load-balancing system for client HTTP requests wherein HTTP requests are distributed across multiple individual server systems. See Barth, column 12, lines 7-13. Appellant's reference to the portion of Barth which discloses that "there is no requirement that the corresponding IP addresses have any commonality or relationship" further points to a system wherein a plurality of server systems may be used to balance the load of HTTP requests. That is, Barth's aforementioned disclosure is directed to a system wherein while servers may have the same domain name (i.e. somename.com), said servers do not have to be located at the same physical location. Accordingly, client traffic may be partitioned and routed to a plurality of single server system which are located at different physical locations. It is noted that Barth is not directed to, as asserted by Appellant, a system wherein "IP addresses would randomly change the path being monitored." Rather, Barth is directed to a system wherein client HTTP connections are distributed and assigned to a plurality of individual server systems such that the flow of traffic may be monitored.

Accordingly, for the aforementioned reasons above, the claim rejections under 35 U.S.C. 103 are maintained.

b. Rejection of Claims 2-6 under 35 U.S.C. 103(a)

Appellant does not assert any new arguments with regards to claims 2-6. Accordingly, the Examiner has no comment.

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c. Rejection of Claims 15-20 under 35 U.S.C. 103(a)

Appellant does not assert any new arguments with regards to claims 15-20. Accordingly, the Examiner has no comment.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Paul Kim/

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